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Jason E. Witte

Iowa State University

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Interactive Multimedia Laboratory Provides Educational Resources

Jason E. Witte *

The Interactive Multimedia Laboratory at the Iowa State University College of Veterinary Medicine assists faculty in the development of computer delivered presentations and in the creation of multimedia lessons for students. The laboratory is available for faculty to gain hands-on experience with newly developed multimedia software.

Headed by Donald Adams, PhD, the laboratory originated in 1991 with funding from a USDA grant and the college. Today, the laboratory employs a courseware development team of eight students using nine computers of both Personal Computer (PC) and Macintosh platforms. Biological/Pre-medical Illustration (BPMI) students and veterinary students use "AuthorWare Professional" software to create computer programs that facilitate veterinary medicine courses.

A canine anatomy program was created by Dr. Adams as an instructional aid for his small animal anatomy course taught to first-year veterinary students.

The purpose of the canine anatomy program is not to replace the process of instructing within the classroom but to act as additional source students can use to test their knowledge acquired in the classroom.

* Jason Witte is a fifth-year biological/pre-medical illustration undergraduate, Iowa State University.



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Fig 1. – This is an Interactive Multimedia Laboratory artist's rendering of the anastomosis of musculocutaneous and median nerves in an elbow dissection of a canine.

Viewing a series of pictures pertaining to the specific dissections, students can "point and click" for more illustrations or for interactive animations. Dr. Adams does not require his pupils to use the program but strongly encourages the students to take advantage of the program.

Available to any Iowa State computer linked to the World Wide Web, students will be able to access the program from a location remote from the classroom or the multimedia laboratory.

Dr. Adams has noticed a growing interest



Fig 2. – This sequence of still images represent the action of a motion picture created from computer-based illustrations. In this Interactive Multimedia Laboratory artist's rendering of an eye, its rotation and reaction to a source of light can be observed.

in computers from students over his years of teaching.

"I felt more confident and familiar with the material to be learned prior to classroom study," said Virginia Coady, second-year veterinary student. "After using the program, I was definitely more prepared."

With the veterinary students' enthusiasm about interactive tutorials, it can be surmised that the programs will play an increasingly important role in future classroom instructions.

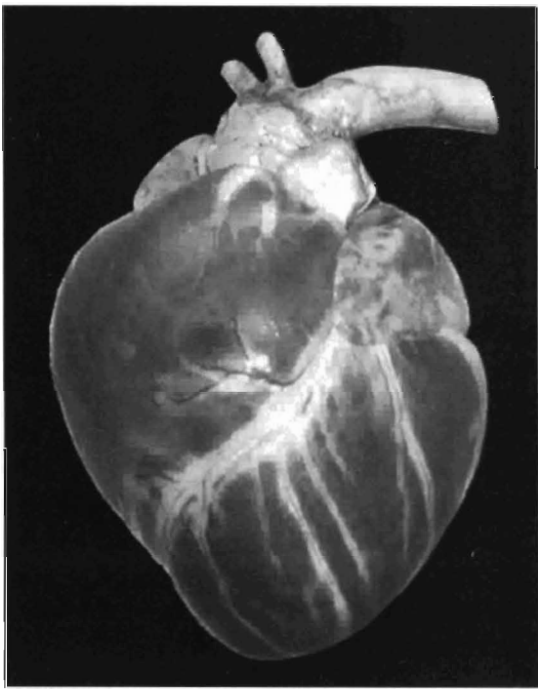
Production Team

The Interactive Multimedia Laboratory provides a unique opportunity for students interested in illustrating from specimens, producing animations and creating three-dimensional visualization on the computer.

Clarifying subject matters that can be understood better with pictures, BPMI students Wendy Noteboom and Jason Witte help provide the illustrations.

An example of the need for clarification can be found in the use of slide film images captured from dissections. These images may not always reveal the detail of a particular vein or nerve that an instructor may wish the students to observe. A better understanding can be attained with an illustrated picture (see Figures 1, 2 and 3). The reader should be aware some detail in the figures may have been lost in this print representation of an on-screen computer image.

The "AuthorWare" computer programmers currently on the team are veterinary students Elizabeth Carney, "Fred" Coady, Lon Evans, Carolyn Fields-Schaffer, Heidi Meier and Mark Troxel. Making everything "hap-



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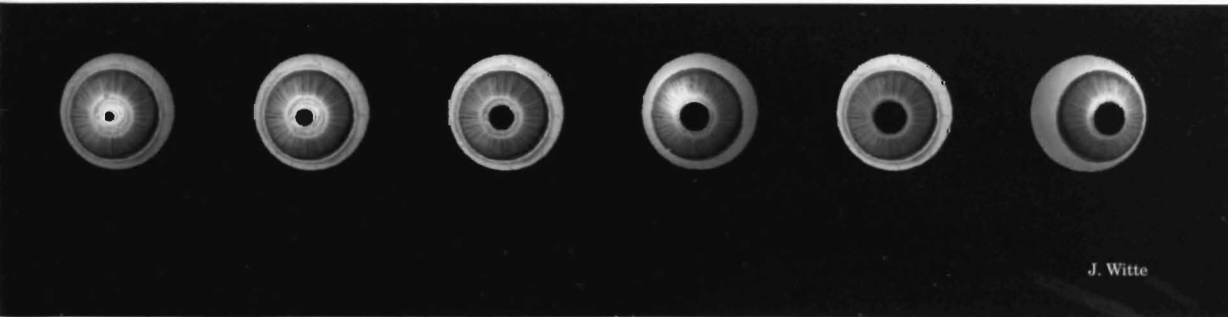
Fig 3. – This image was "warped" to create an animation of the beating heart.

pen" in the multimedia lessons, they use the images obtained from the illustrators to construct the program's interactivity.

Invitation

Located adjacent to the Biomedical Communications Section of the veterinary college, the Interactive Multimedia Laboratory invites veterinary faculty and seniors preparing Grand Rounds presentations to explore computer-aided education.

Readers with questions about the laboratory may choose to review the laboratory's homepage on the World Wide Web at <http://www.vetmed.iastate.edu/units/iml/homepage.html>. **V**



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